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Claims

1 1. (currently amended) A method for making a data call from a host to a destination over a
2 network, comprising the steps of:

3 determining a period of time required to transmit a user's stored data file of
4 predetermined size from the host using the data call over the network;

5 sending a setup message including a holding time of said data call from the host to a
6 switch connected to said network, where the holding time is the period of time needed to transfer
7 the data file using the data call over the network, the holding time determined prior to the
8 sending of the setup message;

9 responsive to said setup message, determining at said switch if a channel is available
10 from a plurality of channels and when said channel is available for making said data call from
11 said host to said destination;

12 responsive to said channel being available, said switch sending a success message to said
13 host identifying said available channel and a start time for making said data call, the start time
14 being a time at which the transfer of the data file will begin;

15 responsive to receiving said success message, said host making said data call to said
16 destination via said available channel at said starting time.

1 2. Canceled.

1 3. (currently amended) The method of claim 12 wherein said holding time is equivalent to a
2 time to transfer said ~~data file of data of known length~~ at a first rate..

1 4. (previously presented) The method of claim 1 wherein said holding time of said data call is a
2 predetermined time interval required for information to be communicated during the data call to
3 be received by the destination from the host.

1 5. Canceled.

1 6. (previously presented) The method of claim 3 wherein said network said data call is made
2 over includes one of SONET and Internet Protocol sub-networks.

1 7. (original) The method of claim 3 wherein said network said data call is made over includes a
2 virtual circuit ATM portion.

1 8. (currently amended) A method for making a data call having a holding time from a host to a
2 destination over a network having a plurality of switches, comprising the steps of:

3 determining a predetermined time duration of the holding time where the predetermined
4 time duration is an amount of time required for a predetermined amount of information to be
5 communicated during the data call to be received by the destination from the host;

6 sending, following the predetermined time duration having been determined, a setup
7 message from the host to a first switch of said plurality of switches of said network requesting a
8 channel to said destination for a data call having said holding time;

9 determining from said setup message and local information at said first switch if a
10 channel of a plurality of channels is available through said first switch to a subsequent switch of
11 said plurality of switches and what times each available channel will be available to make said
12 data call;

13 sending a subsequent setup message including the available channels and the available
14 times for said channels for said data call to a subsequent switch of said plurality of switches;

15 determining from said subsequent setup message and local information at said subsequent
16 switch if a channel of a plurality of channels is available through said first switch and said
17 subsequent switch and what times each available channel will be available to make said data
18 call;

19 sending another setup message including the available channels and the available times
20 for said channels for said data call of said first and subsequent switches to a terminating switch
21 of said plurality of switches that is connected to said destination;

22 determining from said another setup message and local information at said terminating
23 switch if a channel of a plurality of channels is available through said first and subsequent
24 switches and what times each available channel will be available to make said data call; and

25 if a channel will be available for said holding time of said data call through all switches
26 between host and destination, sending a success message identifying the available channel and
27 the available time to make said data call, where the available time is a time at which the transfer
28 of the data file will begin.

1 9. (original) The method of claim 8, wherein in response to said success message each switch
2 along the available channel reserves the channel and the time for said data call as determined by
3 said terminating switch.

1 10. (original) The method of claim 9, wherein said time for said data call was the earliest
2 possible starting time for a successful data call having said holding time from host to destination.

1 11. (currently amended) The method of claim 9, wherein said host makes said data call on the
2 channel and at upon the occurrence of the available ~~the time of the success message.~~

1 12. (original) The method of claim 11, wherein said time for said data call was the earliest
2 possible starting time for a successful data call from host to destination.

1 13. (original) The method of claim 8, wherein said time for said data call was the earliest
2 possible starting time for a successful data call from host to destination.

1 14. (original) The method of claim 8, wherein said determining steps were made using an F
2 method.

1 15. (original) The method of claim 8, wherein said determining steps were made using a
2 timeslots method.

1 16. (original) The method of claim 8, wherein said determining steps were made using a kT_{wait}
2 method.

1 17. (original) The method of claim 8 wherein the subsequent switch and the terminating switch
2 are the same switch.

1 18. (currently amended) An apparatus for completing a data call with a holding time from a host
2 to a destination over a network having a plurality of switches, comprising:

3 a first switch of said plurality of switches connected to said host and having means for
4 receiving a setup message from said host for setting up a channel to said destination for a data
5 call having said holding time where the holding time is a predetermined time duration being an
6 amount of time required for a predetermined amount of information to be communicated to the
7 destination from the host;

8 said first switch having means for determining from said setup message and local
9 information of said first switch if a channel of a plurality of channels is available through said
10 first switch to a subsequent switch of said plurality of switches and at what future times each
11 available channel is available to make said data call in response to receiving said setup message;

12 said first switch also having means for sending a subsequent setup message including the
13 available channels and the available times for said channels for said data call to a subsequent
14 switch of said plurality of switches between said host and said destination;

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15 said subsequent switch having means for determining from said subsequent setup
16 message and local information of said subsequent switch if a channel of a plurality of channels is
17 available through said first switch and said subsequent switch and what times each available
18 channel is available to make said data call;

19 said subsequent switch also having means for sending another setup message including
20 the available channels and the available times for said channels for said data call of said first and
21 subsequent switches to a terminating switch of said plurality of switches that is connected to said
22 destination responsive to said subsequent switch determining means;

23 said terminating switch having means for determining from said another setup message
24 and local information of said terminating switch if a channel of a plurality of channels is
25 available through said first and subsequent switches and what times each available channel is
26 available to make said data call to said destination; and

27 if a channel is available for said data call for the holding time thereof through the
28 switches between said host and said destination, said terminating switch having means for
29 sending a success message identifying the channel and the time when said channel is available to
30 make said data call to said host, where the time when said channel is available is a time at which
31 the transfer of the data file will begin.

1 19. (original) The apparatus of claim 18 wherein the subsequent switch and the terminating
2 switch are the same switch.

1 20. (original) The apparatus of claim 18, wherein said setup message includes said holding time
2 at a first data first rate.

1 21. (original) The apparatus of claim 20 wherein said channel availability determining includes
2 using said file transfer time at said first rate.

1 22 - 32. Canceled.